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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,458	03/04/2004	Han-Yu Li	CMDP0007USA	2457
27765 7590 07/02/2007 NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			EXAMINER DANIEL JR, WILLIE J	
			ART UNIT	PAPER NUMBER
			2617	
			NOTIFICATION DATE	DELIVERY MODE
			07/02/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Office Action Summary**

Application No.

10/708,458

Applicant(s)

LI, HAN-YU

Examiner

Willie J. Daniel, Jr.

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is in response to application filed on 04 March 2004. **Claims 1-9** are now pending in the present application. This office action is made **Non-Final**.

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on
  - a. 4 February 2005
  - b. 19 January 2006

is in compliance with the provisions of 37 CFR 1.97 and is being considered by the examiner. As a note, item 2(b) contains a duplicate document US 5,027,394 that is indicated and considered in item 2(a). The Examiner requests applicant to be mindful of providing a list including repetitive documents in any future IDS.

### ***Drawings***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:
  - a. Fig. 5 includes 'ref. 58'.

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Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Specification*

5. The disclosure is objected to because of the following informalities:
  - a. The specification recites the language "...be n a region..." in line(s) 1-2 of paragraph [0009]. The Examiner interprets as -- be **in** a region -- and suggests replacing said language to help clarify the specification.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claim 1** is rejected under 35 U.S.C. 102(b) as being anticipated by **Cheon (US 6,484,016 B1)**.

Regarding **claim 1**, Cheon discloses a radiotelephone which reads on the claimed “mobile phone” (see col. 4, lines 5-18; Fig. 5) comprising:

a first housing comprising a first rotating component with a first hole (see col. 4, lines 53-58; Fig. 5);

a display panel installed on the first housing (see Fig. 5 ‘ref. 30’);

a second housing comprising a second rotating component with a second hole and connected to the first rotating component, and a plurality of buttons installed on the second housing for inputting button signals (see col. 4, lines 19-24; col. 5, lines 10-13);

a flexible printed circuit (FPC) with a first end stretching from the first opening and a second end stretching from the second opening (see col. 4, lines 39-50);

a third housing connected to the first housing (see Fig. 5); and

a fourth housing connected to the second housing (see Fig. 5).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 2-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Cheon (US 6,484,016 B1)** in view of **Applicant's Admitted Prior Art** (hereinafter Prior Art) (see Description of the Prior Art; Figs. 1-4).

Regarding **claim 2**, Cheon discloses the mobile phone of claim 1 further comprising signal processing module installed in the first housing and the third housing, and a processing module installed in the second housing and the fourth housing the operation of the mobile phone, wherein the signal processing module respectively and the processing module are respectively connected to the first end and the second end of the FPC (see Fig. 5), where the mobile phone has a housing that is arranged to hold components such as a keypad and LCD in which there must be a signal processor and processor (see col. 4, lines 33-35; col. 5, lines 38-45).

However, the examiner maintains that the feature signal processing module installed in the first housing and the third housing, and a processing module installed in the second housing and the fourth housing the operation of the mobile phone, wherein the signal processing module respectively and the processing module are respectively connected to the first end and the second end of the FPC was well known in the art, as taught by Prior Art.

As further support have in the same field of endeavor, Prior Art discloses the feature signal processing module installed in the first housing and the third housing, and a processing module installed in the second housing and the fourth housing the operation of the mobile phone, wherein the signal processing module respectively and the processing module are respectively connected to the first end and the second end of the FPC (see Description of the Prior Art; Figs. 1-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Cheon and Prior Art to have the feature signal processing module installed in the first housing and the third housing, and a processing module installed in the second housing and the fourth housing the operation of the mobile phone, wherein the signal processing module respectively and the processing module are respectively connected to the first end and the second end of the FPC, in order to provide a means of communication, as taught by Prior Art (see Description of the Prior Art; Figs. 1-4).

Regarding **claim 3**, the combination of Cheon and Prior Art discloses every limitation claimed, as applied above (see claim 2), in addition Cheon further discloses the mobile phone of claim 2 wherein when the first opening of the first rotating component and the second opening of the second rotating component are on the same level, the FPC can be installed in the first opening of the first rotating component and the second opening of the second rotating component, and when the first rotating component and the second rotating component are rotated, the first end of the FPC is connected to the signal processing module and the second end of the FPC is connected to the processing module (see Figs. 5-6).

Regarding **claim 4**, the combination of Cheon and Prior Art discloses every limitation claimed, as applied above (see claim 3), in addition Cheon further discloses the mobile phone of claim 3 wherein the FPC is folded and installed in the mobile phone at an angle less than 360 degrees (see col. 4, lines 12-14).

Regarding **claim 5**, the combination of Cheon and Prior Art discloses every limitation claimed, as applied above (see claim 2), in addition Cheon further discloses the mobile phone of claim 2 wherein the display panel is electrically connected to the signal processing module for displaying data from the signal processing module as an image (see col. 4, lines 29-35; Fig. 5 'ref. 30').

Regarding **claim 6**, the combination of Cheon and Prior Art discloses every limitation claimed, as applied above (see claim 2), in addition Cheon further discloses the mobile phone of claim 2 further comprising a speaker installed in the first housing and the third housing and electrically connected to the signal processing module for converting data from the signal processing module into real sound (see col. 4, lines 29-35; Fig. 5 'ref. 210').

Regarding **claim 7**, the combination of Cheon and Prior Art discloses every limitation claimed, as applied above (see claim 2), in addition Cheon further discloses the mobile phone of claim 2 further comprising a vibrator installed in the first housing and the third housing and electrically connected to the signal processing module for vibrating the mobile phone when receiving vibration signals from the signal processing module (see col. 4, lines 49-51).

Regarding **claim 8**, the combination of Cheon and Prior Art discloses every limitation claimed, as applied above (see claim 2), in addition Cheon further discloses the mobile phone of claim 2 further comprising a microphone installed in the second housing and the fourth



housing and electrically connected to the processing module for converting real sound into audio signals and transmitting them to the processing module (see col. 4, lines 14-16; Fig. 5 'ref. 50').

Regarding **claim 9**, the combination of Cheon and Prior Art discloses every limitation claimed, as applied above (see claim 2), in addition Cheon further discloses the mobile phone of claim 2 further comprising a radio module installed in the second housing and the fourth housing and processing module for electrically connected to the receiving radio signals to generate corresponding communication signals and transmitting them to the processing module, and outputting data from the processing module wirelessly (see col. 4, lines 5-10; Fig. 5), where the radiotelephone is used for communication in which the radio module is inherent as evidenced by the fact that one of ordinary skill in the art would clearly recognize.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Koch-Osborne (US 6,568,947 B2) discloses an apparatus for routing a flexible circuit.
- b. Oshima (US 7,076,280 B2) discloses a foldable type cellular telephone.


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie J. Daniel, Jr. whose telephone number is (571) 272-7907. The examiner can normally be reached on 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WJD,JR/

WJD,JR  
21 June 2007

  
**CHARLES N. APPIAH**  
**SUPERVISORY PATENT EXAMINER**